

REMARKS

The Official Action of February 7, 2006, and the prior art relied upon therein have been carefully reviewed. The claims in the application are now claims 3-5 and 8, and these claims define patentable subject matter warranting their allowance. The applicants therefore respectfully request favorable reconsideration and allowance.

Acknowledgement by the PTO of the receipt of applicants' papers filed under Section 119 is noted.

Claims 3-5 have been rejected under the first paragraph of section 112 as lacking enablement for some of the uses recited. The rejection is respectfully traversed.

In effect, the PTO takes the position in this rejection that considering all of the prior art and everything disclosed in applicants' specification, the person skilled in the art will not be able to practice the invention as broadly as it is claimed, and in particular that applicants' specification is not enabling for treating all metabolic bone diseases. Thus, the prior art, even if it were able to be coupled with applicants' specification (which of course it can not be for purposes of section 103), would not enable treating all metabolic bone disease using the claimed method.

On the other hand, the PTO agrees that applicants' specification, with respect to the teaching of the adenine model

in which renal failure develops, is a pathological animal model showing complications such as renal osteodystrophy, which is a metabolic bone disease. Accordingly, applicants' claims have been amended above and now focus on renal failure-associated metabolic bone disease.

In addition, a functional recitation of an effective amount of erythropoietin has now been inserted into applicants' claims.

Withdrawal of the rejection is in order and is respectfully requested.

Claims 3 and 5 have been rejected under section 102 as anticipated by Abendroth et al, citation U (Abendroth). This rejection is respectfully traversed.

Applicants note that Abendroth suggests, in the title, that erythropoietin enhances histomorphometric signs of renal osteodystrophy (ROD), and it discloses, in the last paragraph, that the histomorphometric results indicate an enhancement of secondary hyperparathyroidism (secondary HPT) in ROD by EPO therapy. The purpose in Abendroth "was to observe the effects of erythropoietin (EPO) treatment...." No method of treatment of metabolic bone disease is disclosed or even implied.

Moreover, the results of the Abendroth study were as follows:

EPO therapy in ORD seems to cause an increase in bone eroded surface, in osteoclast and

osteoblast surfaces but a decrease in osteoid volume and osteoid surface.

The results were therefore contrary to the present invention.

As described on page 6, lines 17-21 of the present specification, renal osteodystrophy is a renal failure-associated metabolic bone disease. Thus, Abendroth teaches that EPO therapy **aggravates** renal failure-associated metabolic bone diseases. On the other hand, the present invention relates to a method which **ameliorates** renal failure-associated metabolic bone diseases. Aggravation is the opposite of amelioration.

Because of the opposite results achieved, it is clear that Abendroth does not anticipate any of applicants' claims. Withdrawal of the rejection is order and is respectfully requested.

Claim 4 has been rejected under §103 as obvious from Abendroth in view of Nielsen et al, U.S. published application 2002/00061849 (Nielsen). The rejection is respectfully traversed.

Anyone skilled in the art desiring to do what applicants have done, namely treat metabolic bone disease in a patient suffering form renal failure-associated metabolic bone disease, would never adopt the unsuccessful treatment of Abendroth, because Abendroth clearly teaches that EPO therapy aggravates renal failure-associated metabolic bone disease. Thus, Abendroth teaches **away from** the present invention,

regardless of what Nielsen teaches. What applicants did was in effect to fly in the face of Abendroth, the very antithesis of obviousness.

Contrary to the results of Abendroth, the healing effect of EPO on renal failure-associated metabolic bone disease which is produced by the present invention is confirmed by histopathological observation of the lesions in models suffering from the disease, as shown on page 16, line 27 to page 18, line 8 of the present specification. Such an effect is unexpected from Abendroth. Therefore, Abendroth would not lead a person skilled in the art to make the present invention. On the contrary, it would prevent a person skilled in the art from reaching the present invention since the teaching of Abendroth contradicts the present invention.

Because of the negative teachings of Abendroth, the teachings of Nielsen are basically irrelevant, and would be disregarded by those skilled in the art in view of the fact that Nielsen provides no experimental results showing any healing effect of EPO on renal failure-associated metabolic bone disease.

The rejection notes paragraph [0026] of Nielsen. This paragraph focuses the administration of EPO for the treatment of an inflammatory condition in the airways and lungs, kidney and urinary tract system, and the prostate. Paragraphs [0028] through [0035] provide a huge basket or shotgun disclosure of inflammatory conditions too numerous to even count, renal

osteodystrophy being mentioned among the many in paragraph [0032] at page 5, left hand column, second and third lines.

It should be clear that no person having ordinary skill in the art would consider Nielsen over Abendroth, particularly when considering that Nielsens' mention of renal osteodystrophy is only one out of perhaps hundreds of listed inflammatory diseases and that there is not the remotest hint of any effect whatsoever regarding the treatment of renal osteodystrophy in Nielsen, whereas in Abendroth the experimental results are clearly negative. The person of ordinary skill in the art would have clearly disregarded Nielsen.¹

The rejection refers to paragraph [0013] as disclosing EPO dosages which overlaps with those call for in applicants' claim 4, but applicants do not see any EPO dosages in paragraph [0013] of Nielsen. Medicament concentrations of 0.001-99% (practically all possibilities) are mentioned in paragraphs [0108] and [0110], and dosage amounts are given in paragraph [0113]. However, those dosage amounts can only be understood to be used for the treatments actually disclosed in Nielsen, and not for those treatments for which there is no experimental data.

¹ Nielsen makes some rather incredible statements, in addition to the broad alleged utility with respect to inflammatory diseases of any kind. Note for example paragraph [0039] where Nielsen states that the invention relates to any condition where in the normal functions of the organs or tissues is altered including conditions associated with infection including viral, fungal, bacterial, prions... . The allegations of Nielsen are incredible and those not supported by data cannot be taken seriously.

Lastly, and with respect, applicants detect a double standard in the applied rejections. In the rejection under section 112, those skilled in the art are not even enabled to practice the present invention as broadly as it was originally claimed, in spite of the fact that the person skilled in the art would also have Nielsen to rely on in addition to applicants' disclosure. However, in the rejection under section 103, the broad basket disclosure of Nielsen is deemed to make everything obvious. This is wrong! The person skilled in the art is the same person. If that skilled person could not practice applicants' invention as broadly as it was originally claimed from a consideration of Nielsen together with applicants' disclosure, then the same person skilled in the art would not have found applicants' invention to be obvious from Nielsen with or without Abendroth, and **without** applicants' disclosure.

Applicants' invention would not have been obvious from the prior art. Withdrawal of the rejection is order and is respectfully requested.

The prior art documents made of record and not relied upon by the PTO have been noted, along with the implication that such documents are deemed by the PTO to be insufficiently material to warrant their application against any of applicants' claims.

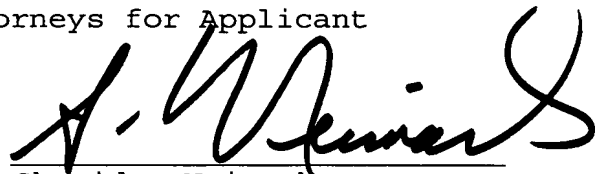
Appln. No. 10/516,688
Amd. dated August 7, 2006
Reply to Office Action of February 7, 2006

Applicants believe that all issues raised in the Official Action have been addressed above in a manner that should lead to patentability of the present application. Favorable consideration and early formal allowance are respectfully requested.

Respectfully submitted,

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